



Dr

Atty. Dkt. No. 039262-0114

Applicants: Jun MURAMATSU et al.

Title: SUBMARINE POWER FEEDING BRANCHING DEVICE FOR
SUBMARINE POWER FEEDING SYSTEM HAVING SUBMARINE
FEEDING CABLES ARRANGED IN MESH PATTERN

Appl. No.: 10/687,931

Filing Date: 10/20/2003

Examiner: Unknown

Art Unit: 2838

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits, and within three (3) months of the mailing date of the foreign search report.

RELEVANCE OF EACH DOCUMENT

The listed documents were cited during prosecution of the corresponding Japanese application. The Examiner stated in connection with the corresponding application in Japan:

Notes (for cited documents, see List of cited documents)

- Claims 1-4, 6, 8 and 9
 - Cited documents 1-4
 - Remarks
- Given for example the sea-bottom power supply system of cited document 1, which supplies backup constant voltage power for a constant voltage power supply which has ceased operating, and considering:
- cited document 2, wherein DC/DC converter 3 (constant current/constant current converter) comprises a control unit 60, switching circuit 10 (the circuit of figures 3, 4, etc, comprising a switch controlled electrically by a control circuit, first condenser, transformer, etc), commutation circuit 20 (circuit comprising a diode, second condenser, etc) and the like, wherein the DC/DC converter 3 (constant current/constant current converter) is controlled and monitoring is performed for the presence of anomalies and the like;
- the transmission device of cited document 3, which performs signal transmission using a DC/DC converter having the circuit configuration illustrated in the appended drawings; and
- the relay circuit of cited document 4, wherein supply current fluctuations are detected and a bias current control circuit (bypass circuit) is actuated,
- it is found that the inventions according to the aforementioned claims could be easily conceived of if necessary.

- Claim 5
 - Cited documents 1-5
 - Remarks
- In cited document 5, the primary coil of a transformer is provided with a plurality of taps, a switch is connected to each of the taps, and the switches are controlled to allow changing the coil ratio of the transformer.

- Claim 7
 - Cited documents 1-6
 - Remarks
- In cited document 6, a plurality of relays are provided, a first output terminal of one relay is connected to the input terminal of another relay, and so forth, causing them to operate substantially as a single relay.

- Claim 10
- Cited documents 1-8

Remarks

In cited document 7, normally, a plurality of communication devices are powered by the power supply within each device to allow operation of said plurality of devices (a pair of communication devices is used to provide an output signal current (constant current)), while in the sea-bottom relay of cited document 8, power is supplied to a pair of circuit units 4 and 5 (communication devices) from a shared power supply line and output is provided via a cable. Thus, it is found that the sea-bottom power supply system configured as in claim 10 could be suitably accomplished.

Claim 11

Cited documents 1-9

Remarks

In the sea-bottom power supply branching device of cited document 9, relay coils B and C connected to the cables of line terminals 1 and 3 constitute a type of mesh in relation to relay coil A connected to the cable of line terminal 2.

Furthermore, considering the constitution of the communication network of Figure 1 in cited document 7, it is found that arranging a trunk cable and a sub-trunk cable in a mesh pattern is a matter which could be easily thought of as necessary.

List of cited documents

1. Unexamined Patent Application Publication 2002-164820
2. Unexamined Patent Application Publication 2000-23365
3. Utility Model Application S52-109926 (Unexamined Utility Model Application Publication S54-35820) microfilm
4. Unexamined Patent Application Publication S51-134013
5. Unexamined Patent Application Publication H11-155135
6. Unexamined Patent Application Publication S63-204824
7. Unexamined Patent Application Publication S51-68709
8. Unexamined Patent Application Publication S57-30430
9. Unexamined Patent Application Publication H8-97692

STATEMENT

The undersigned hereby states in accordance with 37 CFR §1.704(d) that each item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart application and that this communication was not received by any individual designated in 37 CFR §1.56(c) more than thirty days prior to the filing of the information disclosure statement.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

Date 12/30/05

By 

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: December 30, 2005 <i>(use as many sheets as necessary)</i>				Complete if Known Application Number: 10/687,931 Filing Date: 10/20/2003 First Named Inventor: Jun MURAMATSU Group Art Unit: 2838 Examiner Name: Unknown Attorney Docket Number: 039262-0114	
Sheet	1	of	1		

O I P E I A P S
 DEC 30 2005
 PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	A1	5,841,205		WEBB	11/24/1998	

U.S. PATENT APPLICATION DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Application Document		Name of Patentee or Applicant of Cited Document	Filing Date of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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FOREIGN PATENT DOCUMENTS								
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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	A2	JP	11-155135	A	MIHARU TSUSHIN KK	06/08/1999		ABS.
	A3	JP	51-134013		NEC CORP.	11/20/1976		ABS.
	A4	JP	2002-164820		KAIYO KAGKU GIJUTSU CENT.	06/07/2002		ABS.
	A5	JP	2000-23365		TOSHIBA KK	01/21/2000		ABS.
	A6	JP	63-204824		NIPPON TELEGR. AND TELEPH. CORP.	08/24/1988		ABS.
	A7	JP	57-30430		NEC CORP.	02/18/1992		ABS.
	A8	JP	8-97692		STC SUBMARINE SYTEMS LTD.	04/12/1996		ABS.
	A9	JP	54-35820			08/17/1952		
	A10	JP	51-68709			06/14/1976		

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ⁶

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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